

**Amendments to the Claims:**

This listing of claims replaces all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (One Time Amended)      An apparatus, comprising:  
an optical transport for receiving an electromagnetic wave having a first property,  
said transport having a waveguiding region and one or more guiding regions coupled to said  
waveguiding region; and  
a transport influencer, operatively coupled to said optical transport and having at  
least a portion integrated with one or more guiding regions of said one or more guiding regions,  
for affecting a second property of said transport, wherein said second property influences said  
first property of said wave.
2. (Original)      The apparatus of claim 1 wherein said first property is a  
polarization plane and said second property is a magnetic field in said transport.
3. (Original)      The apparatus of claim 1 wherein said influencer produces a  
controllable magnetic field parallel to a propagation direction of said wave through said  
transport.
4. (Original)      The apparatus of claim 2 wherein said influencer produces a  
controllable magnetic field parallel to a propagation direction of said wave through said  
transport to alter said polarization plane of said wave.
5. (Original)      The apparatus of claim 2 wherein said influencer alters said  
polarization plane by changing a rotation angle of at least one component of said polarization  
plane in a range from about zero degrees to about ninety degrees.
6. (One Time Amended)      The apparatus of claim 1 wherein said transport is  
a fiber waveguide including a core and a cladding corresponding to one or more of said one or  
more guiding regions and wherein said influencer includes a magnetic material ~~proximate~~  
integrated with said cladding.

7. (Original) The apparatus of claim 6 wherein said magnetic material includes permanent magnetic material.

8. (Original) The apparatus of claim 6 wherein said magnetic material is selectively magnetized responsive to an electric current.

9. (Original) The apparatus of claim 6 wherein said magnetic material is integrated into said fiber waveguide.

10. (One Time Amended) An apparatus, comprising:  
an optical transport for receiving an electromagnetic wave having one of a right hand circular polarization or a left hand circular polarization, said transport having a waveguiding region and one or more guiding regions coupled to said waveguiding region; and  
a transport influencer, operatively coupled to said optical transport and having at least a portion integrated with one or more guiding regions of said one or more guiding regions, for controllably affecting a magnetic field of said transport to change a polarization angle of said wave.

11. (Original) The apparatus of claim 10 wherein said influencer changes a polarization angle over a range of about zero degrees to about ninety degrees.

12. (Original) The apparatus of claim 10 wherein said influencer produces a controllable magnetic field parallel to a propagation direction of said wave through said transport to alter said polarization angle.

13. (Original) The apparatus of claim 11 wherein said influencer is responsive to a control signal for changing said polarization angle.

14. (Original) The apparatus of claim 12 wherein said influencer is responsive to a control signal for changing said polarization angle.

15. (Original) The apparatus of claim 11 wherein said influencer alters said polarization angle over a range from about zero degrees to about ninety degrees.

16. (Original) The apparatus of claim 12 wherein said influencer alters said polarization angle over a range from about zero degrees to about ninety degrees.

17. (One Time Amended) The apparatus of claim 10 wherein said transport is a fiber waveguide including a core and a cladding corresponding to one or more guiding regions of said one or more guiding regions and wherein said influencer includes a magnetic material ~~proximate~~ integrated with said cladding.

18. (Original) The apparatus of claim 6 wherein said magnetic material includes permanent magnetic material.

19. (Original) The apparatus of claim 6 wherein said magnetic material is selectively magnetized responsive to an electric current.

20. (Original) The apparatus of claim 6 wherein said magnetic material is integrated into said fiber waveguide.

21. (One Time Amended) A method, comprising:  
receiving an electromagnetic wave having a first property at an optical transport, said transport having a waveguiding region and one or more guiding regions coupled to said waveguiding region; and

affecting a second property of said transport using a transport influencer coupled to said optical transport and having at least a portion integrated with one or more guiding regions of said one or more guiding regions, wherein said second property influences said first property of said wave.

22. (Original) The method of claim 21 wherein said first property is a polarization plane and said second property is a magnetic field in said transport.

23. (Original) The method of claim 21 wherein said influencer produces a controllable magnetic field parallel to a propagation direction of said wave through said transport.

24. (Original) The method of claim 22 wherein said influencer produces a controllable magnetic field parallel to a propagation direction of said wave through said transport to alter said polarization plane of said wave.

25. (Original) The method of claim 22 wherein said influencer alters said polarization plane by changing a rotation angle of at least one component of said polarization plane in a range from about zero degrees to about ninety degrees.

26. (One Time Amended) The method of claim 21 wherein said transport is a fiber waveguide including a core and a cladding corresponding to one or more guiding regions of said one or more guiding regions and wherein said influencer includes a magnetic material ~~proximate~~ integrated with said cladding.

27. (Original) The method of claim 26 wherein said magnetic material includes permanent magnetic material.

28. (Original) The method of claim 26 wherein said magnetic material is selectively magnetized responsive to an electric current.

29. (Original) The method of claim 26 wherein said magnetic material is integrated into said fiber waveguide.

30. (One Time Amended) An apparatus, comprising:  
means for receiving an electromagnetic wave having a first property at an optical transport, said transport having a waveguiding region and one or more guiding regions coupled to said waveguiding region; and  
means, operatively coupled to said receiving means and having at least a portion integrated with one or more guiding regions of said one or more guiding regions, for affecting a second property of said transport using a transport influencer coupled to said optical transport, wherein said second property influences said first property of said wave.

31. (Original) The apparatus of claim 30 wherein said first property is a polarization plane and said second property is a magnetic field in said transport.

32. (Original) The apparatus of claim 30 wherein said influencer produces a controllable magnetic field parallel to a propagation direction of said wave through said transport.

33. (Original) The apparatus of claim 31 wherein said influencer produces a controllable magnetic field parallel to a propagation direction of said wave through said transport to alter said polarization plane of said wave.

34. (Original) The apparatus of claim 31 wherein said influencer alters said polarization plane by changing a rotation angle of at least one component of said polarization plane in a range from about zero degrees to about ninety degrees.

35. (Original) The apparatus of claim 30 wherein said transport is a fiber waveguide including a core and a cladding corresponding to one or more guiding regions of said one or more guiding and wherein said influencer includes a magnetic material ~~proximate~~ integrated with said cladding.

36. (Original) The apparatus of claim 35 wherein said magnetic material includes permanent magnetic material.

37. (Original) The apparatus of claim 35 wherein said magnetic material is selectively magnetized responsive to an electric current.

38. (Original) The apparatus of claim 35 wherein said magnetic material is integrated into said fiber waveguide.

39. (New) An apparatus, comprising:  
a fiber waveguide for receiving an electromagnetic wave having a particular polarization, said waveguide having a core and one or more guiding regions disposed around said core; and  
a variable magnetic field generating structure, a portion of which is integrated with and operatively to one or more of said guiding regions, for producing a controllable variable magnetic field in said core responsive to a control signal, said controllable variable magnetic field variably changing said particular polarization responsive to said control signal.